TE100R THRU TE108R

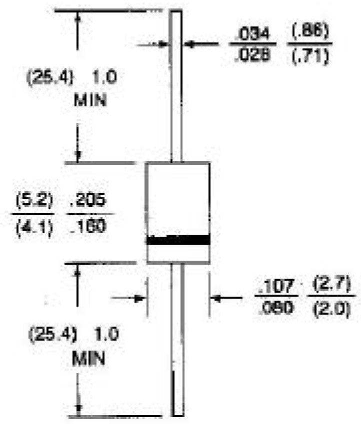
GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 1.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- Glass passivated junction
- 1 ampere operation at T_A=55 with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency

DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-41

Terminals: axial leads, solderable per MIL-STD-202,
Method 208

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	TE100R	TE101R	TE102R	TE104R	TE106R	TE108R	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	V
Maximum RMS Voltage	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at T_A=55	1.0						A
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load(JECEC method)	30						A
Maximum Forward Voltage at 1.0A	1.3						V
Maximum Full Load Reverse Current Full Cycle Average, .375",9.5mm Lead Length at T_A=55	5.0						A
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A=100	150						A
Maximum Reverse Recovery Time(Note 1)	150	150	150	150	250	500	ns
Typical Junction capacitance (Note 2) CJ	15						$_P$F
Typical Thermal Resistance (Note 3) R JA	67						/W
Operating and Storage Temperature Range T_J	-55 to +150						

NOTES:

1. Measured with I_F=.5A, I_R=1A, I_{rr}=.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
3. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length P.C.B. mounted

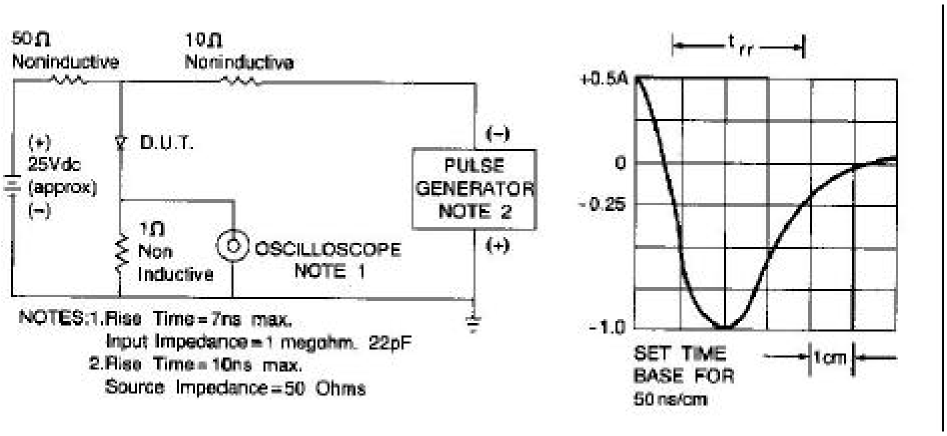


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

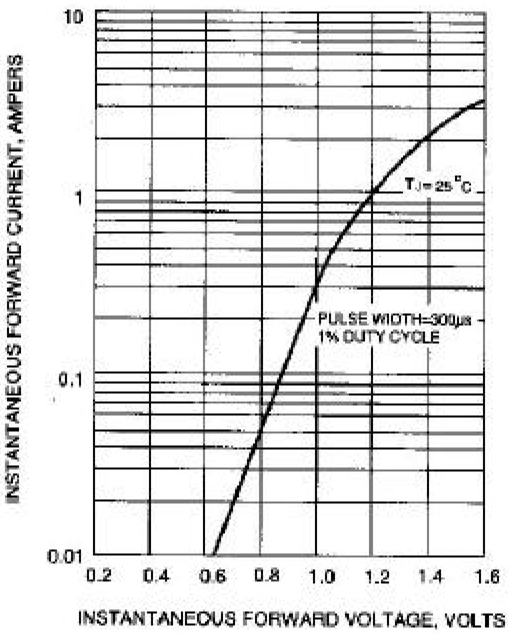


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

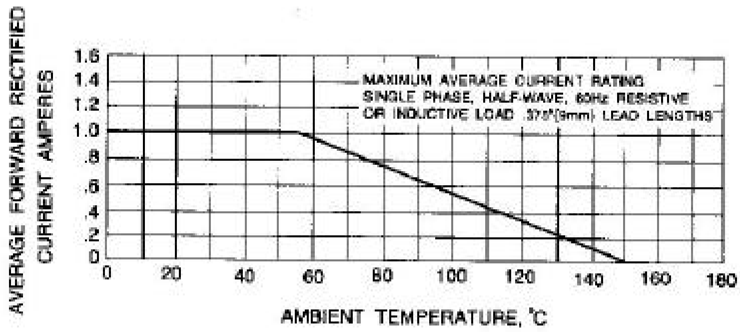


Fig. 3-FORWARD CURRENT DERATING CURVE

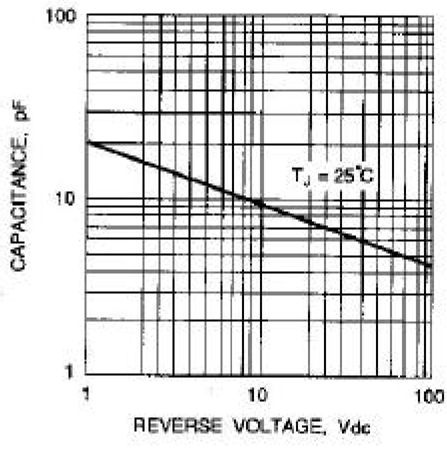


Fig. 4-TYPICAL JUNCTION CAPACITANCE

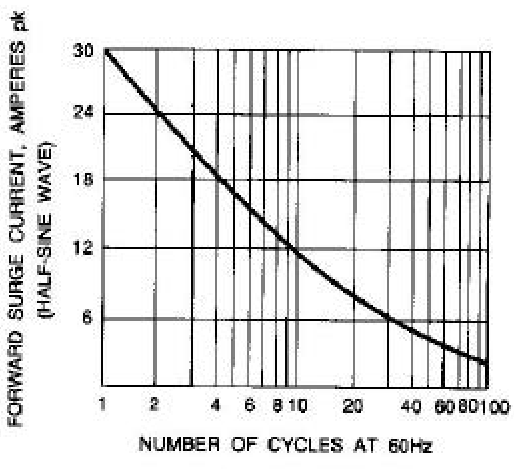


Fig. 5-PEAK FORWARD SURGE CURRENT